

Removal of Retained Lead Shot Through Laparoscopic Appendectomy

P. S. Sian, MBChB, D. M. Lloyd, MD

ABSTRACT

We describe a patient presenting with lead shot in his appendix. A plain radiograph of his lumbar spine was performed for back pain, and an incidental finding of lead shot retained within the appendix was seen. Lead shot in the appendix is associated with appendicitis, and 2 cases have been reported of lead intoxication. We suggest that an elective laparoscopic appendectomy should be offered to patients as a possible management option.

Key Words: Lead shot, Appendix, Laparoscopic appendectomy.

INTRODUCTION

Reports of foreign bodies found in the appendix are rare. Most cases were reported around the turn of the century.¹ A literature review conducted in 1998 noted 256 reported cases of ingested foreign bodies within the appendix occurring over the last 100 years.² Since that review, only 2 cases have been reported. Lead shot or pellets retained in the appendix after ingestion account for approximately a third of all reported cases. These cases include 2 reports of lead intoxication^{3,4} and numerous reports of appendicitis.

CASE REPORT

A 45-year-old male general medical practitioner presented to a rheumatologist with a few months' history of back pain and paresthesia affecting both hands. As part of his investigations, radiographs were taken of his spine including his pelvis. The films confirmed a diagnosis of cervical nerve root irritation due to cervical spondylosis. However, as an incidental finding, opacities were seen above the right sacro-iliac joint (**Figure 1**). He was referred for a surgical opinion because the appearance suggested the opacities might be lead shot in the appendix. A further history from the patient revealed that he had eaten pigeon as a child on numerous occasions. The patient was eager to have his appendix removed laparoscopically despite normal blood lead levels. He underwent a laparoscopic appendectomy as a day case. Macroscopic appearance of the open appendix is shown in **Figure 2**. Histology showed reactive lymphoid hyperplasia with no evidence of acute inflammation or serosal reaction. There were in total 27 pieces of lead shot found in the appendix.

CONCLUSION

Lead shot in the appendix is a rare phenomenon. A potential risk exists of lead intoxication and acute appendicitis developing. Laparoscopic appendectomy has been shown to be a reliable and safe method.⁵ It is therefore suggested that patients who present with lead shot in their appendix should be given the option of an elective appendectomy.

Department of General Surgery, Leicester Royal Infirmary, Leicester, LE1 5WW, United Kingdom (all authors).

Address reprint requests to: P. S. Sian, MD, Department of General Surgery, Leicester Royal Infirmary, Leicester, LE1 5WW, United Kingdom. Telephone: 0044 7715 171836, Fax: 0044 1924 500050, E-mail: parma@glenlib.zzn.com

© 2003 by JSLS, Journal of the Society of Laparoendoscopic Surgeons. Published by the Society of Laparoendoscopic Surgeons, Inc.



Figure 1. Plain abdominal radiograph showing opacities in the appendix.

References:

1. Balch CM, Silver D. Foreign bodies in the appendix. Report of eight cases and review of the literature. *Arch Surg.* 1971;102(1):14-20.
2. Klingler PJ, Seelig MH, DeVault KR, et al. Ingested foreign bodies within the appendix: A100-year review of the literature. *Dig Dis.* 1998;16(5):308-314.
3. Hillman FE. A rare case of chronic lead poisoning: polyneuropathy traced to lead shot in the appendix. *Ind Med Surg.* 1967;36(7):488-492.
4. Lyons JD, Filston HC. Lead intoxication from a pellet entrapped in the appendix of a child: treatment considerations. *J Pediatr Surg.* 1994;29(12):1618-1620.
5. Henle KP, Beller S, Rechner J, Zerz A, Szinicz G, Klinger A. Laparoscopic versus conventional appendectomy: a prospective randomised study. *Am J Surg.* 1999;177(6):525.

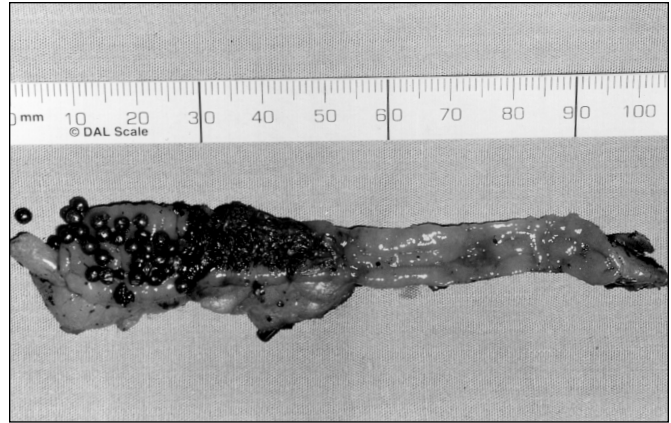


Figure 2. Pathological specimen of the opened appendix following laparoscopic removal, demonstrating multiple lead shot.